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United States Patent [19][11] **Patent Number:** **6,011,804****Bertin et al.**[45] **Date of Patent:** **Jan. 4, 2000**[54] **DYNAMIC BANDWIDTH RESERVATION
FOR CONTROL TRAFFIC IN HIGH SPEED
PACKET SWITCHING NETWORKS**[75] **Inventors:** **Olivier Bertin, Nice; Claude Galand,
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Corporation, Armonk, N.Y.**[21] **Appl. No.:** **08/771,333**[22] **Filed:** **Dec. 16, 1996**[30] **Foreign Application Priority Data**

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[51] **Int. Cl.⁷** **H04J 3/16; H04L 12/28;
G01R 31/08**[52] **U.S. Cl.** **370/468; 370/468; 370/400;
370/230; 370/236**[58] **Field of Search** **370/254, 255,
370/256, 230, 237, 400, 468, 351, 238,
396, 412, 410, 522, 252, 253, 236; 395/11,
200**[56] **References Cited****U.S. PATENT DOCUMENTS**

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A method and system for reserving dynamically and in priority for each link of the network the exact amount of bandwidth necessary for the transmission of the network control traffic. An evaluation of the expected control traffic on each link of the network is performed in order to allocate a sufficient but minimum fraction of the link bandwidth and for allocating the maximum available bandwidth for the user traffic.

3 Claims, 9 Drawing Sheets**HIGH SPEED PACKET SWITCHING NODE**